

Claims

1. A method for creating active finite elements comprising the steps of:

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a) constructing the active finite elements with a combinations of motor elements, dashpot elements and spring elements,

b) defining the motor element using a time series  
10 function, and

c) constructing a model with the active finite elements, and

d) analyzing the model using a finite element code.

15 2. The method of Claim 1 wherein said finite element code is a conventional code.

3. The method of Claim 1 wherein said finite elements are one-dimensional or two-dimensional or three-  
20 dimensional.

4. The method of Claim 1 wherein the shapes of said finite elements are linear, triangular, rectangular, quadrilateral, pentagonal, hexagonal, octagonal,

decagonal, polygonal, tetrahedral, pentahedral  
hexahedral, octahedral, decahedral or polyhedral.

5. The method of Claim 1 wherein the types of said  
5 finite elements are solid continuum elements like bar,  
plane stress or plane strain elements, or structural  
elements like beam, plate, truss, membrane, shell or  
frame elements, or other special-purpose elements.